

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

To:

see form PCT/ISA/220

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference

see form PCT/ISA/220

#### FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US2004/007927

International filing date (day/month/year)

17.03.2004

Priority date (day/month/year)

18.03.2003

International Patent Classification (IPC) or both national classification and IPC

B01D46/52, B01D25/00

Applicant

DONALDSON COMPANY, INC.

1. This opinion contains indications relating to the following items:

- ☐ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

#### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/007927

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/007927

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**Box No. II Priority**

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1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

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**Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-22
	No: Claims	23-27
Inventive step (IS)	Yes: Claims	
	No: Claims	1-27
Industrial applicability (IA)	Yes: Claims	1-22
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item V.**

**1** The following document is referred to in this communication:

D1 : US 2002/096247 A1 (WYDEVEN ROBERT M) 25 July 2002 (2002-07-25)

**2** The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 23 is not new (Article 33(2) PCT).

Document D1 discloses (ref. page 5, par. 83 to 86 and fig. 4a) a process and a z-filter media construction, the process includes the steps of securing a fluted filter media sheet (20) to a flat sheet (26) with a sealant strip comprising polyurethane. The sealing step is directly followed by a coiling step that provides a coiled filter media.

**3** The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1 to 22 does not involve an inventive step in the sense of Article 33(3) PCT.

The subject matter of claim 1 **differs** from the disclosure of D1 in that a second sealant strip is provided on a second side of the facing sheet. It is, however, at present not clear to which extent this difference causes unexpected or surprising effects with respect to what is disclosed in the above mentioned prior art. Therefore, no inventive activity can be acknowledged for the time being.

If, however, this difference turns out to be inventive in the sense of Art. 33(3) PCT, the question why it is not disclosed in all the other independent claims arises and whether the application fulfills the requirement of unity of invention (Rules 13.1 and 13.2 PCT; see items 4 and 5 of this communication).

**4** The application does not meet the requirements of Article 6 PCT, because claims 24 to 27 are not clear.

As it can be read several times in the description of the present application (ref. e.g. page 18, line 29 to page 19, line 2 or page 25, lines 9 to 17), the use of polyurethane as a sealant between the corrugated and the flat or facing sheet and at the backside of the facing sheet (see claim 1!) is essential for obtaining a coreless coil of z-filter media by the processes according to claims 24 and 26. This feature, however, is not disclosed in claims 24 and 26 rendering thereby the subject matter of these claims unclear.

As a consequence, novelty or inventive activity (Article 33 PCT) cannot be acknowledged for the time being.

- 5 Moreover, due to the inconsistency between independent claims 1, 22 and 23 on the one hand, and 24 to 27 on the other with regard to the feature of the specific use of polyurethane, the requirement of unity of invention according to Rules 13.1 and 13.3 PCT is formally not complied with.